

## REMARKS

Claims 1-49 were examined and reported in the Office Action. Claims 1-49 are rejected. Claims 1, 8, 23, 34, 45 and 47 are amended. Claims 1-49 remain.

Applicant requests reconsideration of the application in view of the following remarks.

### I. 35 U.S.C. § 102

A. It is asserted in the Office Action that claims 1-7 are rejected under 35 U.S.C. § 102(b), as being anticipated by Young et al., U.S. Patent No. 5,817,017. Applicant respectfully traverses the aforementioned rejection for the following reasons.

According to MPEP §2131,

‘[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.’ (Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987)). ‘The identical invention must be shown in as complete detail as is contained in the ... claim.’ (Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989)). The elements must be arranged as required by the claim, but this is not an ipsissimis verbis test, *i.e.*, identity of terminology is not required. (In re Bond, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990)).

Applicant’s claim 1 contains the limitations of “a medical device adapted to be inserted in an anatomy, the medical device comprising a plurality of target markers, wherein a magnetic resonance imaging (MRI) system will one of not detect and disregard the medical device and the target markers as noise without information obtained on the plurality of target markers prior to insertion of the medical device into the anatomy. “

In other words, claim 1 includes a medical device with target markers that would normally be disregarded as noise or not be detected. In order to be able to detect the

target markers, information regarding the medical device and the markers must be obtained before the device is inserted into an anatomy.

Young discloses a medical device that includes ionic particles incorporated throughout the medical device. The amount of the particles is such that detection of the device through magnetic imaging is enhanced. That is, the amount of particles will not be disregarded as noise or not be detected. Further, no information on the ionic particles need be obtained before Young's device is inserted, as the device will be visible in magnetic imaging. Thus, Young does not teach, disclose or suggest "a medical device adapted to be inserted in an anatomy, the medical device comprising a plurality of target markers, wherein a magnetic resonance imaging (MRI) system will one of not detect and disregard the medical device and the target markers as noise without information obtained on the plurality of target markers prior to insertion of the medical device into the anatomy."

Therefore, since Young et al. does not disclose, teach or suggest all of Applicant's amended claim 1 limitations, Applicant respectfully asserts that a *prima facie* rejection under 35 U.S.C. § 102(b) has not been adequately set forth relative to Young. Thus, Applicant's amended claim 1 is not anticipated by Young. Additionally, the claims that directly or indirectly depend on claim 1, namely claims 2-7, are also not anticipated by Young for the same reason.

Accordingly, withdrawal of the 35 U.S.C. § 102(b) rejections for claims 1-7 are respectfully requested.

**B.** It is asserted in the Office Action that claims 1, 4-10, 13-24, 27-35, and 38-49 are rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,272,370 issued to Gillies et al. ("Gillies"). Applicant respectfully traverses the aforementioned rejection for the following reasons.

Applicant's amended claim 1 contains the limitation of "a medical device adapted to be inserted in an anatomy, the medical device comprising a plurality of target markers, wherein a magnetic resonance imaging (MRI) system will one of not detect and disregard the medical device and the target markers as noise without

information obtained on the plurality of target markers prior to insertion of the medical device into the anatomy.”

Applicant’s amended claim 8 contains the limitations of “a magnetic resonance imaging (MRI) processor, the processor including a low-level signal detection process stored in a memory, ... and a medical device to insert in an anatomy, the medical device having a plurality of target markers, wherein the medical device and the plurality of target markers are each one of not detectable and disregardable as noise for MRI systems without the low-level signal detection process.”

Applicant’s amended claim 23 contains the limitations of “inserting a medical device into an anatomy, the medical device having a plurality of target markers, scanning a magnetic resonance image (MRI) of the anatomy, processing the scanned image by a MRI processor coupled to a memory, determining a location and orientation of the medical device in relation to the anatomy based on the plurality of target markers, and displaying a precise image of the medical device within the anatomy, wherein the medical device and the plurality of target markers are one of disregardable as noise and undetectable for MRI systems.”

Applicant’s amended claim 34 contains the limitations of “... scanning a magnetic resonance image (MRI) of an anatomy, ... the MRI processor having a low-level signal detection process, determining a location and orientation of the medical device in relation to the anatomy based on a plurality of target markers, and displaying a precise image of the medical device within the anatomy, wherein the medical device and the plurality of target markers are each one of not detectable and disregardable as noise for MRI systems.

Applicant’s amended claim 45 contains the limitations of “scanning a magnetic resonance image (MRI) of an anatomy, ... determining a location and orientation of the medical device in relation to the anatomy based on detection of a plurality of target markers in relation to the medical device and each of the plurality of target markers, wherein the plurality of target markers and geometric data of the medical device is determined before the medical device is inserted into the anatomy, ... wherein the

medical device and the plurality of target markers are each one of not detectable and disregardable as noise for MRI systems without the low-level signal detection process."

Applicant's amended claim 47 contains the limitations of "a magnetic resonance imaging (MRI) processor, the processor including a low-level signal detection process stored in a memory, ... the medical device having a plurality of target markers that are one of not detectable and disregardable as noise for MRI systems, wherein the medical device is disregardable as noise for MRI systems without the low-level signal detection process, and prior to insertion of the medical device into the anatomy, location and orientation of the medical device in relation to the anatomy is determined by the processor based on detection of the plurality of target markers in relation to the geometric information of the medical device and each of the plurality of target markers, wherein the geometric information of the medical device and the plurality of the target markers is obtained before the medical device is inserted into the anatomy."

Gillies discloses a device and method for targeted drug delivery. The device disclosed in Gillies is "MR-visible." (See Gillies, column 10, lines 56-61). The device includes a magnetic tip. In another embodiment, Gillies discloses an MR-visible microdialysis probe. (See Gillies, column 13, lines 37-42). Nowhere in Gillies is an insertable medical device disclosed having a plurality of target markers that are either disregarded as noise or undetectable. That is, Gillies does not teach, disclose or suggest the limitations in: claim 1 where "a magnetic resonance imaging (MRI) system will one of not detect and disregard the medical device and the target markers as noise without information obtained on the plurality of target markers prior to insertion of the medical device," in claim 8 where "the medical device and the plurality of target markers are each one of not detectable and disregardable as noise for MRI systems without the low-level signal detection process," in claim 23 where "the medical device and the plurality of target markers are one of disregardable as noise and undetectable for MRI systems," in claim 34 where "displaying a precise image of the medical device within the anatomy, wherein the medical device and the plurality of target markers are each one of not detectable and disregardable as noise for MRI systems," in claim 45 where "the plurality of target markers and geometric data of the medical device is determined before the medical device is inserted into the anatomy, ... wherein the medical device

and the plurality of target markers are each one of not detectable and disregardable as noise for MRI systems,” and in claim 47 where “the medical device having a plurality of target markers that are one of not detectable and disregardable as noise for MRI systems, wherein the medical device is disregardable as noise for MRI systems.”

Therefore, since Gillies does not disclose, teach or suggest all of Applicant’s amended claims 1, 8, 23, 34, 45 and 47 limitations, Applicant respectfully asserts that a *prima facie* rejection under 35 U.S.C. § 102(e) has not been adequately set forth relative to Gillies. Thus, Applicant’s amended claims 1, 8, 23, 34, 45 and 47 are not anticipated by Gillies. Additionally, the claims that directly or indirectly depend on claims 1, 8, 23, 34, 45 and 47, namely claims 4 and 7, 9, 10 and 13-22, 24 and 27-33, 35 and 38-44, 46, and 48-49, respectively, are also not anticipated by Gillies for the same reason.

Accordingly, withdrawal of the 35 U.S.C. § 102(e) rejections for claims 1, 4-10, 13-24, 27-35, and 38-49 are respectfully requested.

## **II. 35 U.S.C. § 103**

It is asserted in the Office Action that Claims 2, 3, 11, 12, 25, 26, and 37 are rejected in the Office Action under 35 U.S.C. § 103(a), as being unpatentable over Gillies in view of Young. Applicant respectfully traverses the aforementioned rejection for the following reasons.

According to MPEP §2142

[t]o establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. (*In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)).

Further, according to MPEP §2143.03, “[t]o establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. (*In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974).” “All words in a claim must be considered in judging the patentability of that claim against the prior art.” (*In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970), emphasis added.)

Claims 2 and 3 depend on amended claim 1. Claims 11-12 depend on amended claim 8. Claims 25-26 depend on amended claim 23. Claim 37 depends on amended claim 34. Applicant has addressed Gillies regarding amended claims 1, 8, 23 and 34 above in section I(B). Applicant has addressed Young regarding amended claims 1 and 8 above in section I(A). Applicant’s amended claims 23 and 34 contain limitations of “the medical device and the plurality of target markers are one of disregarable as noise and undetectable for MRI systems,” which are similar to the limitations contained in amended claims 1 and 8. As asserted above in section I(A), Young does not teach, disclose or suggest a magnetic resonance imaging (MRI) system will one of not detect and disregard the medical device and the target markers as noise,” nor “the medical device having a plurality of target markers, wherein the medical device and the plurality of target markers are each one of not detectable and disregarable as noise for MRI systems.”

Further, neither Young nor Gillies disclose, teach or suggest the limitations contained in: claim 1 of a magnetic resonance imaging (MRI) system will one of not detect and disregard the medical device and the target markers as noise,” in claim 8 of “the medical device having a plurality of target markers, wherein the medical device and the plurality of target markers are each one of not detectable and disregarable as noise for MRI systems,” in claim 23 of “the medical device and the plurality of target markers are one of disregarable as noise and undetectable for MRI systems,” or in claim 34 of “the medical device and the plurality of target markers are each one of not detectable and disregarable as noise for MRI systems.”

Therefore, even if Gillies were combined with Young, the resulting invention would still not include all of Applicant’s claimed limitations. Moreover, since neither Young nor Gillies teach, disclose or suggest all the limitations of Applicant’s amended

claims 1, 8, 23 and 34, there would be no motivation to combine Gillies with Young as any resulting combination would also not teach, disclose or suggest all the limitations contained in the afore-mentioned claims. Thus, Applicant's amended claims 1, 8, 23 and 34 are not obvious over Gillies in view of Young since a *prima facie* case of obviousness has not been met under MPEP §2142. Additionally, the claims that directly or indirectly depend from amended claims 1, 8, 23 and 34, namely claims 2 and 3, 11 and 12, 25 and 26, and 36-37, respectively, would also not be obvious over Gillies in view of Young for the same reason.

Accordingly, withdrawal of the 35 U.S.C. § 103(a) rejections for Claims 1, 8, 23 and 34 are respectfully requested.

### CONCLUSION

In view of the foregoing, it is submitted that claims 1-49 patentably define the subject invention over the cited references of record, and are in condition for allowance and such action is earnestly solicited at the earliest possible date. If the Examiner believes a telephone conference would be useful in moving the case forward, he is encouraged to contact the undersigned at (310) 207-3800.

If necessary, the Commissioner is hereby authorized in this, concurrent and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2666 for any additional fees required under 37 C.F.R. §§1.16 or 1.17, particularly, extension of time fees.

### PETITION FOR EXTENSION OF TIME

Per 37 C.F.R. 1.136(a) and in connection with the Office Action mailed on March 23, 2005, Applicant respectfully petitions the Commissioner for a one (1) month extension of time, extending the period for response to July 25, 2005 (July 23, 2005 being a Saturday). The Commissioner is hereby authorized to charge payment to Deposit Account No. 02-2666 in the amount of \$120.00 to cover the petition filing fee for a 37 C.F.R. 1.17(a)(1) large entity. A duplicate copy of this sheet is enclosed.

Respectfully submitted,

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Dated: July 25, 2005

By: \_\_\_\_\_

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### **CERTIFICATE OF MAILING**

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail with sufficient postage in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P. O. Box 1450, Alexandria, Virginia 22313-1450 on July 25, 2005.

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Jean Svoboda